IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPELLANTS' MAIN BRIEF ON APPEAL

APPELLANTS:	Thorsten A. Laux, et al.	ATTY DOCKET NO.:	30014200-1020
SERIAL NO.:	10/025,497	GROUP ART UNIT:	2151
DATE FILED:	December 26, 2001	EXAMINER:	Karen C. Tang
INVENTION:	METHOD AND APPARATUS FOR PROVIDING A CLIENT BY A SERVER WITH AN INSTRUCTION DATA SET IN A PREDETERMINED FORMAT IN RESPONSE TO A CONTENT DATA REQUEST MESSAGE BY A CLIENT		

Mail Stop Appeal Brief - Patents
Hon. Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appellants submit herewith Appellants' Main Brief on Appeal under 37 C.F.R. §41.37 in support of the Notice of Appeal mailed on August 21, 2006. The Commissioner is hereby authorized to charge the amount of $500.00 for the requisite filing fee for filing the Main Brief on Appeal to the Appellants' Attorneys' credit card. Credit Card payment for the fee is made via the electronic submission process.

Appellants filed a Pre-Appeal Brief Request for Review on August 21, 2006. In response, the reviewing panel issued a Notice of Panel Decision from Pre-Appeal Brief Review on September 21, 2006, which stated that the case should proceed to the Board of Patent Appeals and Interferences. Therefore, Appellants file this Main Brief on Appeal.

The Commissioner is hereby authorized to charge any deficiency in fees associated with this communication or credit any overpayment to Deposit Account No. 19-3140. A duplicate copy of this sheet is enclosed.

Respectfully Submitted,

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Dear Sir:

In accordance with the provisions of 37 C.F.R. §41.37, Appellants submit this Main Brief on Appeal pursuant to the Notice of Appeal mailed on August 21, 2006 in the above-identified application.

I. REAL PARTY IN INTEREST:

The real party in interest in the present appeal is the Assignee, Sun Microsystems. The assignment was recorded in the U.S. Patent and Trademark Office at Reel 012720, Frame 0185.

II. RELATED APPEALS AND INTERFERENCES:

Appellants filed a Pre-Appeal Brief Request for Review and accompanying Arguments on August 21, 2006. In response, the reviewing panel issued a Notice of Panel Decision from Pre-Appeal Brief Review on September 21, 2006, which stated that the case should proceed to the Board of Patent Appeals and Interferences. Therefore, Appellants file this Main Brief on Appeal.

Appellants are not aware of any related appeals or interferences.

III. STATUS OF CLAIMS:

Claims 1-45 are pending in the application.

The present appeal is directed to claims 1-45, which were finally rejected in an Office Action dated April 21, 2006. A copy of claims 1-45 is appended hereto as the Claims Appendix.

The status of the claims on appeal is as follows:

Claims 1-45 are rejected under 35 U.S.C. §103(a) as being unpatentable *Brandow, et al. (U.S. Patent No. 6,938,041)("Brandow")* in view of *Gu, et al. (U.S. Patent No. 6,892,230)("Gu.")*

IV. STATUS OF AMENDMENTS:

All amendments have been entered in this application.

V. SUMMARY OF CLAIMED SUBJECT MATTER:

Claims 1-45 are currently pending. Claims 1, 18, 21, 38, and 42-45 are the only pending independent claims. The claimed invention generally relates to methods, systems, and articles of manufacture in which a server provides a client with an instruction data set in a specified instruction format in response to the client requesting content data.

Claims 1-17:

Referring to Figures 5d, 6, and 7d as an illustrative example, independent claim 1 claims a data processing system in a client and server system. The server 100 provides the client 200 with an instruction data set 150 in a specified instruction format in response to a content data request CDRQ from the client. (Specification 27:18-23).

The server 100 includes a memory 102 that has a server program 103. (Specification 26:16-22; Figure 5d). A processor 26 runs the server program. The server program 103 provides one or more content data request properties of the content data request made by the client. (Specification 30:17-18; Figure 5d).

The server program prepares the instruction data set having the specified instruction format and includes a plurality of instruction element data sets. (Specification 34:21-35:5; Figure 5d).

Each instruction element data set represents a specified instruction element of the instruction format and generated by at least one instruction element generating application in an instruction format set up sequence. (Specification 34:21-35:5; Figure 7b).

The server program includes an instruction format configuration file containing a tree data structure including a plurality of instruction format nodes. Each of the instruction format nodes indicates a particular combination of instruction elements having the specified instruction format. Each nodes has associated with it a node selection criterion. (Figures 6 and 7b; Specification 35:6-18).

The server program searches the tree data structure with the determined content data request properties and selects an instruction format node whose associated node selection condition matches the determined content data request properties. (Specification 35:19-22; Figure 7b).

The server prepares the instruction data set to be sent to the client by executing the instruction element generating application of the selected instruction format node. (Specification 36:14-21; Figure 7b).

Claims 2-17 depend directly or indirectly from claim 1.

Claims 18-20:

Referring to Figures 5d, 6, and 7d as an illustrative example, independent claim 18 claims a method in a data processing system for providing in a client and server system, at least one client 200 by a server 100 with an instruction data set 150 in a specified instruction format in response to a content data request CDRQ from the client. (Specification 27:18-23).

At least one content data request properties of a content data request made by the client is provided. (Specification 30:17-18; Figure 5d).

The instruction data set is prepared having the specified instruction format and including a plurality of instruction element data sets each representing a specified instruction element of the specified instruction format. (Specification 34:21-35:5; Figures 5d and 7d).

A search is performed on a tree data structure that is stored in an instruction format configuration file and includes a plurality of instruction format nodes. Each instruction format node indicates a specified combination of instruction elements including the specified instruction format and has associated with it a node selection criterion. (Figures 6 and 7b; Specification 35:6-18).

The search is performed with the determined content data request properties and for selecting an instruction format node whose associated node selection condition matches the determined content data request properties. (Specification 35:19-22; Figure 7b).

The instruction data set is prepared to be sent to the client by executing instruction element generating applications of the selected instruction format node. (Specification 36:14-21;

Figure 7b).

Claims 19-20 depend directly or indirectly from claim 18.

Claims 21-37:

Referring to Figures 5d, 6, and 7d as an illustrative example, independent claim 21 claims a computer readable medium containing instructions that cause a data processing system to perform a method of providing in a client and server system, at least one client 200 by a server 100 with an instruction data set 150 in a specified instruction format in response to a content data request CDRQ from the client. (Specification 22:9-17 and 27:18-23).

At least one content data request properties of a content data request made by the client is provided. (Specification 30:17-18; Figure 5d).

The instruction data set is prepared having the specified instruction format and including a plurality of instruction element data sets each representing a specified instruction element of the specified instruction format. (Specification 34:21-35:5; Figures 5d and 7d).

A search is performed on a tree data structure that is stored in an instruction format configuration file and includes a plurality of instruction format nodes. Each instruction format node indicates a specified combination of instruction elements including the specified instruction format and has associated with it a node selection criterion. (Figures 6 and 7b; Specification 35:6-18).

The search is performed with the determined content data request properties and for selecting an instruction format node whose associated node selection condition matches the determined content data request properties. (Specification 35:19-22; Figure 7b).

The instruction data set is prepared to be sent to the client by executing instruction element generating applications of the selected instruction format node. (Specification 36:14-21; Figure 7b).

Claims 22-37 depend directly or indirectly from claim 21.

Claims 38-41:

Referring to Figures 5d, 6, and 7d as an illustrative example, independent claim 38 claims a computer-readable memory device encoded with a tree data structure having entries which are accessed by a program that provides at least one client by a server in a client and server system, with an instruction data set in a specified instruction format in response to a content data request. (Specification 22:9-17; 27:18-23; 35:6-18).

The entries include a plurality of instruction format nodes. Each instruction format node indicates a specified combination of instruction elements including a particular instruction format and has associated with it a node selection criterion. (Figures 6 and 7b; Specification 35:6-18).

Claims 39-41 depend directly or indirectly from claim 38.

Claim 42:

Referring to Figures 5d, 6, and 7d as an illustrative example, independent claim 42 claims a method in a data processing system for providing one or more clients 200 by a server 100 in a client and server system, with an instruction data set 150 in a specified instruction format in response to a content data request CDRQ. (Specification 27:18-23).

A tree data structure is prepared that consists of a plurality of instruction format nodes. Each instruction format node indicates a particular combination of instruction elements including a specified instruction format and has associated with it a node selection criterion. (Figures 6 and 7b; Specification 35:6-22).

Claim 43:

Referring to Figures 5d, 6, and 7d as an illustrative example, independent claim 18 claims a method in a data processing system for providing one or more clients 200 by a server 100 in a client and server system, with an instruction data set 150 in a specified instruction format in response to a content data request CDRQ from the client. (Specification 27:18-23).

A specified instruction format template is selected from a number of instruction format templates dependent on at least one of client properties and resource properties. The template describes at what places in the instruction data set specified instruction elements can be placed. (Specification 24:11-25).

Content data is inserted in the places indicated in the instruction format template by at least one instruction element generating application. (Specification 24:11-25).

The selection step also includes selecting the at least one instruction element generating application in accordance with one of client capabilities and resource capabilities, from more than one available instruction element generating application. (Specification 36:14-21).

Claim 44:

Referring to Figures 5d, 6, and 7d as an illustrative example, independent claim 1 claims a data processing system in a client and server system. The server 100 provides the client 200

with an instruction data set 150 in a specified instruction format in response to a content data request CDRQ from the client. (Specification 27:18-23).

The server 100 includes a memory 102 that has a server program 103. (Specification 26:16-22; Figure 5d). A processor 26 runs the server program. The server program 103 provides one or more content data request properties of the content data request made by the client. (Specification 30:17-18; Figure 5d).

The server program prepares the instruction data set having the specified instruction format and includes a plurality of instruction element data sets. (Specification 34:21-35:5; Figure 5d).

Each instruction element data set represents a specified instruction element of the instruction format and generated by at least one instruction element generating application in an instruction format set up sequence. (Specification 34:21-35:5; Figure 7b).

The server program includes an instruction format configuration file containing a tree data structure including a plurality of instruction format nodes. Each of the instruction format nodes indicates a particular combination of instruction elements having the specified instruction format. Each nodes has associated with it a node selection criterion. (Figures 6 and 7b; Specification 35:6-18).

The server program searches the tree data structure with the determined content data request properties and selects an instruction format node whose associated node selection condition matches the determined content data request properties. (Specification 35:19-22; Figure 7b).

The server prepares the instruction data set to be sent to the client by executing the instruction element generating application of the selected instruction format node. (Specification 36:14-21; Figure 7b).

The client computer 200 includes a memory 202 including a client program 203 that provides a content data request to the server 100, and that receives the instruction data set sent by the server 100. A processor 201 runs the client program. (Figure 5d).

There is a network 110 is between the server computer and the client computer. (Figure 5d).

Claim 45:

Referring to Figures 5d, 6, and 7d as an illustrative example, independent claim 45 claims an apparatus, which provides, in a client and server system, at least one client 200 by a server

100 with an instruction data set 150 in a specified instruction format in response to a content data request CDRQ from the client. (Specification 27:18-23).

There is a means for providing at least one content data request properties of a content data request made by the client. (Specification 30:17-18; Figure 5d).

There is a means for preparing the instruction data set having the specified instruction format and including a plurality of instruction element data sets each representing a specified instruction element of the specified instruction format. (Specification 34:21-35:5; Figures 5d and 7d).

There is a means for searching a tree data structure stored in an instruction format configuration file and including a plurality of instruction format nodes, each instruction format node indicating a specified combination of instruction elements including the specified instruction format and having associated with it a node selection criterion, with the determined content data request properties and for selecting an instruction format node whose associated node selection condition matches the determined content data request properties. (Figures 6 and 7b; Specification 35:6-18; 35:19-22).

There is a means for preparing the instruction data set to be sent to the client by executing instruction element generating applications of the selected instruction format node. (Specification 36:14-21; Figure 7b).

It is possible that the above-described elements of claim 45 may be interpreted to invoke 35 U.S.C. §112, paragraph 6. In this case, each of the elements is performed by the server program 103 in the server 100 memory 102 and executed by processor 101.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Claims 1-45 are rejected under 35 U.S.C. §103(a) as being unpatentable *Brandow, et al. (U.S. Patent No. 6,938,041)("Brandow")* in view of *Gu, et al. (U.S. Patent No. 6,892,230)("Gu.")*

VII. ARGUMENT:

As set forth below, claims 1-45 are not unpatentable under 35 U.S.C. §103(a) based on the teachings of *Brandow* in view of *Gu*. Appellants respectfully submit that the Examiner's assertions are incorrect as a matter of fact and law. Thus, for the reasons set forth below, Appellants respectfully request that this Board reverse the rejection of claims 1-45 under 35 U.S.C. §103(a) as being unpatentable based on the teachings of *Brandow* in view of *Gu*.

A. *Brandow* in view of *Gu* fails to disclose or suggest the tree data structure of claims 1-37, 44, and 45:

Brandow in view of *Gu* fails to disclose or suggest Applicants' claimed tree data structure. Independent claims 1, 18, 21, 44, and 45 each claim subject matter relating to providing an instruction data set in a specified instruction format in response to a content data request. A tree data structure, which is stored in an instruction format configuration file, includes a plurality of instruction format nodes. Each instruction format node indicates a specified combination of instruction elements including a specified instruction format. Further, each instruction format node has associated with it a node selection criterion.

The instruction data set is provided by searching the tree data structure and selecting an instruction format node whose associated node selection condition matches a property in the content data request. In other words, if a node's selection condition matches the content data request's properties, then that node's instruction elements are provided as the instruction data set.

This is clearly unlike *Brandow* in view of *Gu*, which fails to disclose or suggest Appellants' claimed tree data structure. *Brandow* teaches two types of tree data structures. One of *Brandow's* tree data structures is used to query a database. *Brandow* 7:31-33. *Brandow* discloses a method for querying a database using SQL statements that have been received from a client. *Brandow* 7:31-33. *Brandow* parses the received SQL statements and converts them into a query tree, "which represents the components of the query in a format selected for the convenience of the system." *Brandow* 7:36-39. The query tree is then normalized, compiled, and converted "into a set of instructions suitable for satisfying the query." *Brandow* 7:31-64.

Thus, *Brandow's* first type of tree data structure is clearly unlike Applicants' claimed tree data structure. To begin with, *Brandow's* query tree is not stored in an instruction format configuration file. *Brandow* generates its query tree on the fly after receiving the SQL statements. *Brandow* 7:36-41.

Further, *Brandow's* query tree does not include instruction format nodes that indicate a specified combination of instruction elements including a specified instruction format. Instead, each of *Brandow's* query tree nodes merely includes an SQL statement, which is a component of the received SQL query. *Brandow* 7:36-39. As discussed above, Appellants' nodes each indicates a combination of instruction elements including a specified instruction format. *Brandow's* nodes do not include a combination of instruction elements and do not include a specified instruction format -- they merely include the SQL statements of a received SQL database query.

Further, *Brandow's* query tree does not include instruction format nodes that have node

selection criteria associated with them. In fact, *Brandow* fails to discuss or suggest that node selection criteria are associated with its nodes. *Brandow's* nodes merely include the SQL statements of a received SQL database query.

Therefore, *Brandow's* first type of tree data structure (*i.e.*, *Brandow's* query tree) fails to disclose or suggest Appellants' claimed tree data structure.

Brandow's second type of tree data structure is a clustered index for a database, which is clearly unrelated to Appellants' claimed tree data structure. *Brandow* defines a clustered index as "an index which stores the data pages of the records themselves on the terminal or leaf-level nodes of the index." *Brandow* 7:14-30. *Brandow* 7:14-30 further describes that

> [f]or enhancing the speed in which the Database Server stores, retrieves, and presents particular data records, the Server maintains one or more database indexes on the table, under control of an Index Manager. A database index, typically maintained as a B-Tree data structure, allows the records of a table to be organized in many different ways.

Thus, *Brandow's* tree's nodes include the data pages of records of a database. This is clearly unrelated to Appellants' tree data structure.

Contrary to the Examiner's argument, *Brandow* clustered index for a database fails to disclose or suggest a tree that has: 1) instruction format nodes 2) that indicate a specified combination of instruction elements 3) including a specified instruction format and 4) that have associated with them node selection criterion. *Brandow's* nodes do not indicate a combination of instruction elements. Instead, they include data pages. Therefore, *Brandow's* nodes could not include a specified instruction format for a combination of instruction elements. Accordingly, *Brandow's* nodes are not instruction format nodes, they are data pages of database records.

In a vague manner, the Examiner cites to many columns of *Brandow* (specifically columns 7, 8, 12, 14-18, and 20) to support the Examiner's argument. *Office Action of 4/21/06,* page 3. However, none of these passages from *Brandow* even relate to a tree data structure that includes instruction format nodes that indicate a specified combination of instruction elements including a specified instruction format and having associated with it a node selection criterion. Therefore, neither of *Brandow's* tree data structures discloses or suggests Appellants' claimed tree data structure.

Gu also fails to disclose or suggest Appellants' claimed tree data structure. *Gu* discloses a Description Document that "has a tree of nested Devices that can be traversed to find the matching Device." *Gu* 16:66-67. Thus, *Gu's* tree's nodes are nested Devices. This is clearly unrelated to Appellants' tree nodes, which are instruction format nodes. Further, *Gu* fails to

disclose or suggest a tree data structure having nodes that indicate a specified combination of instruction elements including a specified instruction format and having associated with it a node selection criterion. As noted above, *Gu's* tree nodes identify nested Devices.

Accordingly *Brandow* in view of *Gu* fails to disclose or suggest claims 1, 18, 21, 44, and 45.

Claims 2-17, 19-20, and 22-37 depend directly or indirectly from claims 1, 18, or 21 and are therefore allowable for at least the same reasons that claims 1, 18, and 21 are allowable.

B. *Brandow* in view of *Gu* fails to disclose or suggest the tree data structure of claims 38-41:

Brandow in view of *Gu* also fails to disclose or suggest the tree data structure of claims 38-41. Independent claim 38 claims subject matter relating to a computer-readable memory device encoded with a tree data structure. The tree data structure has entries that include a plurality of instruction format nodes. Each instruction format node indicates a specified combination of instruction elements including a particular instruction format. Each node has associated with it a node selection criterion.

This is clearly unlike *Brandow* in view of *Gu*, which fails to disclose or suggest Applicants' claimed tree data structure. As discussed above, neither of *Brandow's* two types of tree data structures include instruction format nodes that indicate a specified combination of instruction elements including a particular instruction format and having associated with it a node selection criterion. Instead, *Brandow's* first type of tree data structure is a query tree, which has nodes that include SQL statements. *Brandow* 7:36-39. *Brandow's* second type of tree data structure has nodes that include data pages of the records of a database. *Brandow* 7:14-30.

Gu also fails to disclose or suggest a tree data structure that includes instruction format nodes that indicate a specified combination of instruction elements including a specified instruction format and having associated with it a node selection criterion. As discussed above, *Gu's* tree nodes identify nested Devices.

Therefore, *Brandow* in view of *Gu* fails to disclose or suggest claim 38.

Claims 39-41 depend directly or indirectly from claim 38 and are therefore allowable for at least the same reasons that claim 38 is allowable.

C. *Brandow* in view of *Gu* fails to disclose or suggest the tree data structure of claim 42:

Brandow in view of *Gu* also fails to disclose or suggest the tree data structure of claim 42. Claim 42 claims a method comprising preparing a tree data structure consisting of a plurality of instruction format nodes. Each instruction format node indicates a particular

combination of instruction elements including a specified instruction format. Each node has associated with it a node selection criterion.

This is clearly unlike *Brandow* in view of *Gu*, which fails to disclose or suggest Applicants' claimed tree data structure. As discussed above, neither of *Brandow's* two types of tree data structures include instruction format nodes that indicate a combination of instruction elements including a particular instruction format and having associated with it a node selection criterion. Instead, *Brandow's* first type of tree data structure is a query tree, which has nodes that include SQL statements. *Brandow* 7:36-39. *Brandow's* second type of tree data structure has nodes that include data pages of the records of a database. *Brandow* 7:14-30.

Gu also fails to disclose or suggest a tree data structure that includes instruction format nodes that indicate a specified combination of instruction elements including a specified instruction format and having associated with it a node selection criterion. As discussed above, *Gu's* tree nodes identify nested Devices.

Accordingly, *Brandow* in view of *Gu* fails to disclose or suggest claim 42.

D. *Brandow* in view of *Gu* fails to disclose or suggest the template of claim 43:

Brandow in view of *Gu* also fails to disclose or suggest the tree data structure of claim 43. Claim 43 claims a method comprising selecting a specified instruction format template dependent on at least one of client properties and resource properties. The template describes at what places in an instruction data set specified instruction elements can be placed.

This is clearly unlike *Brandow* in view of *Gu*, which fails to disclose or suggest Applicants' claimed template. *Brandow* discloses that its templates can be used to create objects. *Brandow* 15:56. However, nowhere does *Brandow* disclose or suggest a template that describes at what places in an instruction data set specified instruction elements can be placed. This subject matter is simply not discussed in *Brandow*.

Gu also teaches using templates, however, *Gu's* templates describe a transmission protocol. *Gu* 52:66. *Gu* fails to disclose or suggest a template that describes at what places in an instruction data set specified instruction elements can be placed.

Therefore, *Brandow* in view of *Gu* fails to disclose or suggest claim 43.

Appellants respectfully request that the Board reverse the rejection.

VIII. CONCLUSION:

For the foregoing reasons, Appellants respectfully submit that the rejections posed by the Examiner are improper as a matter of law and fact. Accordingly, Appellants respectfully request the Board reverse the rejections of claims 1-45.

Respectfully submitted,

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CLAIMS APPENDIX

1. (original) A data processing system in a client and server system, the server providing the client with an instruction data set in a specified instruction format in response to a content data request from the client, the system comprising:

a server computer comprising:

a memory including a server program that provides one or more content data request properties of the content data request made by the client, that prepares the instruction data set having the specified instruction format and including a plurality of instruction element data sets each representing a specified instruction element of the instruction format and generated by at least one instruction element generating application in an instruction format set up sequence, that includes an instruction format configuration file containing a tree data structure including a plurality of instruction format nodes, each of the instruction format nodes indicating a particular combination of instruction elements having the specified instruction format and having associated with it a node selection criterion, that searches said tree data structure with said determined content data request properties and selects an instruction format node whose associated node selection condition matches said determined content data request properties, and that prepares the instruction data set to be sent to the client by executing the instruction element generating application of the selected instruction format node; and

a processor that runs said server program.

2. (original) The system according to claim 1, wherein said server program analyzes said content data request to provide one or more of client unit related properties and content data related properties.

3. (original) The system according to claim 2, wherein said server program provides for each client as said client unit related properties, device properties about the client, provides as said content data related properties, resource properties about data content resources providing the content data; provides as said client unit related properties, properties about the content data requesting unit used at the client; and provides as said client unit related properties, properties about commands issued at the client.

4. (original) The system according to claim 2, wherein said memory includes a first property storage area for client unit related properties and a second storage area for content data related properties.

5. (original) The system according to claim 4, wherein said server program analyzes a first content data request to obtain said client unit related properties and said content data related properties, wherein at an arrival of any subsequent content data request in a same session said server program only accesses one of said first storage area and said second storage area to provide said at least one of client unit related properties and said content data related properties.

6. (original) The system according to claim 2, wherein said node selection condition comprises at least one node selection requirement including at least one property name parameter and an expected property;

wherein said search is started at a root instruction format node;

wherein a property relating to said property name parameter of said node selection condition of a next instruction format node is requested to be provided for the current data request; and

wherein when said provided property matches with said expected property, said instruction format selection branches to said next instruction format node.

7. (original) The system according to claim 6, wherein said node selection requirement further comprises a property type parameter indicating a type of property provided.

8. (original) The system according to claim 6, wherein said node selection condition further comprises at least one operation condition for logically combining results of at least two requirements.

9. (original) The system according to claim 1, wherein said instruction format formed by instruction elements of a root instruction format node of said tree data structure is a default instruction format.

10. (original) The system according to claim 9, wherein said default instruction format is an instruction format with an instruction template and a plurality of instruction element positions into which the instruction element generating applications insert instruction element data sets when they are executed.

11. (original) The system according to claim 1, wherein said instruction format includes an instruction template and a plurality of instruction element positions into which said instruction element generating applications insert instruction element data sets when they are executed.

12. (original) The system unit according to claim 1, wherein said instruction element generating application includes a component name of a component to be executed.

13. (original) The system according to claim 12, wherein said instruction element generating application further includes an argument name with a substitution name of a substitution component located at a different node.

14. (original) The system according to claim 11, wherein said instruction data set is a set of instruction data for displaying a screen with a particular screen layout format on the client, wherein said instruction template is a screen layout template and said instruction element positions are place holders into which said insert screen element data sets are inserted by said instruction element generating application when said instruction element generating application is executed.

15. (original) The system according to claim 11, wherein said instruction data set is a set of instruction data for controlling a device with a specified control command layout format on the client, wherein said instruction template is a command layout template and said instruction element positions are command holders into which said instruction element generating application inserts command data sets when said instruction element generating application is executed.

16. (original) The system according to claim 1, wherein the client and the server are JAVA based applications, and wherein said instruction format configuration file containing said tree data structure is an XML file.

17. (original) The system according to claim 1, wherein said instruction element generating application is one of a JAVA servlet and a JAVA server pages program.

18. (original) A method in a data processing system for providing in a client and server system, at least one client by a server with an instruction data set in a specified instruction format in response to a content data request, comprising the steps of:

providing at least one content data request properties of a content data request made by the client;

preparing the instruction data set having the specified instruction format and including a plurality of instruction element data sets each representing a specified instruction element of the specified instruction format;

searching a tree data structure stored in an instruction format configuration file and including a plurality of instruction format nodes, each instruction format node indicating a specified combination of instruction elements including the specified instruction format and having associated with it a node selection criterion, with said determined content data request properties and for selecting an instruction format node whose associated node selection condition matches said determined content data request properties; and

preparing the instruction data set to be sent to the client by executing instruction element generating applications of the selected instruction format node.

19. (original) The method according to claim 18, further comprising the steps of:

analyzing a first content data request to obtain and store properties in a memory and, at an arrival of a subsequent content data request in a same session, accessing said memory for providing said properties.

20. (original) The method according to claim 18, wherein said node selection condition comprises at least one node selection requirement including at least one property name parameter and an expected property; and further comprising the steps of:

starting a search at a root instruction format node;

requesting from a current content data request a property relating to said property name parameter of a node selection condition of a next instruction format node; and

branching to said next instruction format node if said provided property matches with said expected property.

21. (original) A computer readable medium containing instructions that cause a data processing system to perform a method of providing in a client and server system, at least one client by a server with an instruction data set in a specified instruction format in response to a content data request, the method comprising the steps of:

providing at least one content data request properties of a content data request made by the client;

preparing the instruction data set having the specified instruction format and including a plurality of instruction element data sets each representing a specified instruction element of the specified instruction format;

searching a tree data structure stored in an instruction format configuration file and including a plurality of instruction format nodes, each instruction format node indicating a specified combination of instruction elements including the specified instruction format and having associated with it a node selection criterion, with said determined content data request properties and for selecting an instruction format node whose associated node selection condition matches said determined content data request properties; and

preparing the instruction data set to be sent to the client by executing instruction element generating applications of the selected instruction format node.

22. (original) The method according to claim 21, further comprising the step of analyzing said content data request to provide said at least one client unit related properties and content data related properties.

23. (original) The method according to claim 22, further comprising the steps of:

providing for each client as said client unit related properties device properties about the client;

providing as said content data related properties, resource properties about data content resources providing the content data;

providing as said client unit related properties, properties about the content data requesting unit used at the client; and

providing as said client unit related properties, properties about commands issued at the client.

24. (original) The method according to claim 22, wherein a memory is provided which includes a first property storage area for said client unit related properties and a second storage area for said content data related properties.

25. (original) The method according to claim 24, further comprising the step of analyzing a first content data request to obtain said client unit related properties and said content data related properties, wherein at an arrival of any subsequent content data request in a same session, one of said first storage area and said second storage area is accessed to provide said at least one of client unit related properties and said content data related properties.

26. (original) The method according to claim 22, wherein said node selection condition comprises at least one node selection requirement including at least one property name parameter and an expected property;

wherein said search is started at a root instruction format node;

wherein a property relating to said property name parameter of said node selection condition of a next instruction format node is requested to be provided for the current data request; and

wherein when said provided property matches with said expected property, said instruction format selection branches to said next instruction format node.

27. (original) The method according to claim 26, wherein said node selection requirement further comprises a property type parameter indicating a type of property provided.

28. (original) The method according to claim 26, wherein said node selection condition

further comprises at least one operation condition for logically combining results of at least two requirements.

29. (original) The method according to claim 21, wherein said instruction format formed by instruction elements of a root instruction format node of said tree data structure is a default instruction format.

30. (original) The method according to claim 29, wherein said default instruction format is an instruction format with an instruction template and a plurality of instruction element positions into which the instruction element generating applications insert instruction element data sets when they are executed.

31. (original) The method according to claim 21, wherein said instruction format includes an instruction template and a plurality of instruction element positions into which said instruction element generating applications insert instruction element data sets when they are executed.

32. (original) The method according to claim 21, wherein said instruction element generating application includes a component name of a component to be executed.

33. (original) The method according to claim 32, wherein said instruction element generating applications further include an argument name with a substitution name of a substitution component located at a different node.

34. (original) The method according to claim 31, wherein said instruction data set is a set of instruction data for displaying a screen with a particular screen layout format on the client, wherein said instruction template is a screen layout template and said instruction element positions are place holders into which said insert screen element data sets are inserted by said instruction element generating applications when said instruction element generating applications are executed.

35. (original) The method according to claim 31, wherein said instruction data set is a set of instruction data for controlling a device with a specified control command layout format on the client, wherein said instruction template is a command layout template and said instruction element positions are command holders into which said instruction element generating applications insert command data sets when said instruction element generating applications are executed.

36. (original) The method according to claim 31, wherein the client and the server are JAVA based applications, and wherein said instruction format configuration file containing said tree data structure is an XML file.

37. (original) The method according to claim 17, wherein said instruction element generating applications is one of a JAVA servlet and a JAVA server pages program.

38. (original) A computer-readable memory device encoded with a tree data structure having entries which are accessed by a program that provides at least one client by a server in a client and server system, with an instruction data set in a specified instruction format in response to a content data request, wherein the program is encoded in the memory device and is run by a processor, the entries comprising:

a plurality of instruction format nodes, each instruction format node indicating a specified combination of instruction elements including a particular instruction format and having associated with it a node selection criterion.

39. (original) The device according to claim 38, wherein the tree data structure is generated separately for each session between the client and the server.

40. (original) The device according to claim 38, wherein said tree data structure is generated once and independently for each session between the client and the server.

41. (original) The device according to claim 38, wherein said tree data structure is generated dependent on at least one of client-related properties and content data properties.

42. (original) A method in a data processing system for providing one or more clients by a server in a client and server system, with an instruction data set in a specified instruction format in response to a content data request, comprising the steps of:

preparing a tree data structure consisting of a plurality of instruction format nodes, each instruction format node indicating a particular combination of instruction elements including a specified instruction format and having associated with it a node selection criterion; and

searching said tree data structure with content data request properties relating to the content data request sent by the client and for selecting an instruction format node whose associated node selection condition matches said content data request properties.

43. (original) A method in a data processing system for providing one or more clients by a server in a client and server system, with an instruction data set in a specified instruction format, comprising the steps of:

selecting from a number of instruction format templates a specified instruction format template dependent on at least one of client properties and resource properties, wherein said template describes at what places in the instruction data set specified instruction elements can be placed; and

inserting content data in the places indicated in said instruction format template by at least one instruction element generating application;

wherein the selection step also including selecting said at least one instruction element generating application in accordance with one of client capabilities and resource capabilities, from more than one available instruction element generating application.

44. (original) A data processing system in a client and server system, the server providing the client with an instruction data set in a specified instruction format in response to a content data request from the client, the system comprising:

a server computer comprising:

a memory including a server program that provides one or more content data request properties of the content data request made by the client, that prepares the instruction data set having the specified instruction format and including a plurality of instruction element data sets each representing a specified instruction element of the instruction format and generated by at least one instruction element generating application in an instruction format set up sequence, that includes an instruction format configuration file containing a tree data structure including a plurality of instruction format nodes, each of the instruction format nodes indicating

a particular combination of instruction elements having the specified instruction format and having associated with it a node selection criterion, that searches said tree data structure with said determined content data request properties and selects an instruction format node whose associated node selection condition matches said determined content data request properties, and that prepares the instruction data set to be sent to the client by executing the instruction element generating application of the selected instruction format node; and

a processor that runs said server program;

a client computer comprising:

a memory including a client program that provides a content data request to the server, and that receives the instruction data set sent by the server; and

a processor that runs said client program; and

a network between said server computer and said client computer.

45. (original) An apparatus which provides, in a client and server system, at least one client by a server with an instruction data set in a specified instruction format in response to a content data request, comprising:

means for providing at least one content data request properties of a content data request made by the client;

means for preparing the instruction data set having the specified instruction format and including a plurality of instruction element data sets each representing a specified instruction element of the specified instruction format;

means for searching a tree data structure stored in an instruction format configuration file and including a plurality of instruction format nodes, each instruction format node indicating a specified combination of instruction elements including the specified instruction format and having associated with it a node selection criterion, with said determined content data request properties and for selecting an instruction format node whose associated node selection condition matches said determined content data request properties; and

means for preparing the instruction data set to be sent to the client by executing instruction element generating applications of the selected instruction format node.

EVIDENCE APPENDIX

Appellants do not submit additional evidence with this appeal brief.

RELATED PROCEEDINGS APPENDIX

Appellants are not aware of any related appeals or interferences with regard to the present application.